

4.11 WATER RESOURCES

This section analyzes the potential water resource impacts associated with the proposed Grading and Stormwater Management Ordinances. The purpose of the analysis is to evaluate existing water supplies, based primarily on County Water Planning Areas (WPAs), comparing these to anticipated water demand generated by future development accommodated under General Plan buildout. Areas at a Level of Severity III for water resources that could experience substantial future development include WPA-6 (Nipomo), WPA-3 (Los Osos/Morro Bay) and WPA-1 (North Coast).

4.11.1 Setting

a. Water Delivery Systems. County-operated water delivery systems encompass two key components: infrastructure, which consists of individual service lines and mains, pumps, lift stations, and storage facilities such as tanks and reservoirs; and the energy required to move large amounts of water over the many miles of pipelines that service the County. Water service utilities in unincorporated areas of the County are provided by county service areas (CSAs), community service districts (CSDs), or private water companies.

A county service area (CSA) is a special taxing area which bears a special assessment or service charge for particular types of extended services, including (but not limited to) water service. CSAs are managed by the Board of Supervisors. Under the Board's direction, CSAs may levy taxes, establish zones of benefit, incur bonded indebtedness and enter into contracts. There are seven CSAs in San Luis Obispo County. A community service district (CSD) is a local governing body authorized to provide a variety of public services, with the exception of land use planning. A CSD typically has an elected governing body with full financial and operational responsibilities. There are thirteen CSDs in San Luis Obispo County.

Within rural portions of the county (i.e. outside of urban and village areas), development is largely served by private wells. Additionally, several village areas which have not yet developed a community water system are likewise served by wells. These include such areas as Pozo, Creston, and California Valley. Water drawn from wells can include both aquifers and riparian underflow. Appropriation of groundwater for private on-site use is not regulated by the state. The County does, however, issue permits through the Environmental Health Department for new wells. The County's annual Resource Management System report has identified potential concerns with the groundwater basin underlying the Nipomo Mesa (refer to Table 4.11-1. Additionally, the County is presently investigating conditions in the Paso Robles Groundwater Basin. Little information is available on many of the other aquifers and basins in the County, although analysis provided by the State Department of Water Resources ("Bulletin 118," updated 2003) shows all basins in San Luis Obispo County to have an acceptable water budget:

- Basins where the groundwater budget is considered "understood" by the Department of Water Resources:
 - Salinas Valley – Paso Robles
 - Los Osos Valley
 - San Luis Obispo Valley



- Santa Maria River Valley
- San Simeon Valley
- Santa Rosa Valley

- Basins with limited information:
 - Carrizo Plain
 - San Carpofofo Valley
 - Arroyo de la Cruz Valley
 - Villa Valley
 - Cayucos Valley
 - Old Valley
 - Toro Valley
 - Morro Valley
 - Chorro Valley
 - Rinconada Valley
 - Pozo Valley
 - Huasna Valley
 - Rafael Valley
 - Big Spring Area

Water distribution infrastructure is divided into a complex network of connected and independent facilities dispersed amongst the County's twelve different Water Planning Areas (WPAs). WPAs represent the geographic organization of the County. Water demand, agricultural water needs, sources of supply, and other information are organized by WPA. Prior to the 1998 Water Master Plan Update, countywide water management plans have been organized by County Planning Area, a designation which does not coincide with watershed or groundwater basin boundaries. The following WPAs are intended foremost to recognize important hydrogeologic units throughout the County (refer to Figure 4.11-1 for WPA locations). The following discussion is based on the most recent County published data available.

WPA 1 – North Coast. Water Planning Area 1 (WPA 1) is situated in the northwest corner of the County and includes the communities of San Simeon and Cambria. The northern boundary of WPA 1 is the San Luis Obispo/Monterey County line. The Santa Lucia Range provides the WPA boundary along the northeast side, while the watershed divide between Villa Creek (WPA 1) and Cayucos Creek (WPA 2) forms the boundary to the south. Other creeks within this WPA include: San Carpofofo, Arroyo Hondo, Arroyo de los Chinos, Arroyo de la Cruz, Burnett, Oak Knoll, Arroyo Laguna, Little Pico, North Fork Pico, South Fork Pico, San Simeon, Steiner, Santa Rosa, and Perry. Water purveyors include Cambria CSD, San Simeon Acres CSD, and the 7X Youth Ranch.

WPA 2 – Cayucos. Water Planning Area 2 (WPA 2) includes coastal watersheds from Cayucos Creek to Toro Creek. The unincorporated community of Cayucos has three water purveyors, which provide services to the local urban area: Morro Rock Mutual Water Company, Paso Robles Beach Water Company, and County Service Area #10 [together, the Cayucos Area Water Organization (CAWO)].



WPA 3 – Los Osos/Morro Bay. Water Planning Area 3 (WPA 3) encompasses Los Osos and those portions of Morro Bay that are within the Chorro Creek watershed. WPA 3 extends along State Route 1 (Cuesta College, Camp San Luis Obispo, Dairy Creek Golf Course, and the California Men's Colony). Three water purveyors serve the Los Osos area: Los Osos CSD, Golden State Water Company and S&T Mutual Water Company. The City of Morro Bay provides water service within its corporate boundaries.

WPA 4 – San Luis Obispo/Avila. Water Planning Area 4 (WPA 4) includes San Luis Obispo Creek watershed as well as the area from Avila Beach to Montana De Oro State Park. WPA 4 extends into Edna Valley up to the Pismo Creek watershed divide. Purveyors include the City of San Luis Obispo, Avila Beach CSD, CSA 21, San Miguelito Water Company, and Avila Valley Estates Water Company.

WPA 5 – Five Cities. Water Planning Area 5 (WPA 5) includes the Five Cities area from Pismo Creek to Arroyo Grande Creek watersheds. WPA 5 also encompasses Lopez Lake watershed. Purveyors include: the City of Arroyo Grande; the City of Grover Beach; the City of Pismo Beach; Oceano CSD; and the Golden State Water Company. Private purveyors include the following:

- *Biddle Regional County Park*
- *Blue Sky Water Assn.*
- *Branch Elementary School*
- *Deer Valley*
- *Fowler Mobile Home Estates*
- *Grande Mobile Home Manor*
- *Ken Mar Gardens*
- *Lopez Recreational Area*
- *Mutual Water Assn*
- *Newsom Spring MWC*
- *Nunes Water Supply*
- *Oak Park Manor*
- *Sweet Springs Mobile Park*
- *Talley Farms Labor Housing*
- *Terra De Oro Water Co.*
- *Varian Ranch MWC*
- *Circle II (Tract 1323)*

WPA 6 – Nipomo Mesa. Water Planning Area 6 (WPA 6) includes that portion of San Luis Obispo County that lies within the Santa Maria River watershed. Purveyors include the Nipomo CSD and the Golden State Water Company. Private water purveyors include the following:

- *Arroyo Grande Mushroom Farm*
- *Ball Tagawa Growers*
- *Black Lake Canyon Water Supply*
- *Callender Water Assn*
- *Country Hills Estates*
- *Greenheart Farms*
- *Heritage Lane MWC*
- *Hetrick Water Co.*
- *La Mesa Water Co*
- *Mesa Dunes MH Estates*
- *Rancho Nipomo Water Co.*
- *Rural Water Co.*
- *Guadalupe Cooling*
- *Clearwater Nursery*
- *Cuyama Lane Water Co*
- *Dana Elementary School*
- *La Colonia Water Assn*
- *Laguna Negra (Tract 610)*
- *Mesa Mutual Water Co*
- *Rim Rock Water Co*
- *Santa Maria Speedway*
- *Speedling, Inc.*
- *True Water Supply*
- *Vista De Las Flores Water Co.*
- *Woodland Park Mutual Water Co.*
- *Woodlands Mutual Water Co.*



WPA 7 – Cuyama. Water Planning Area 7 (WPA 7) encompasses the portion of San Luis Obispo County that lies within the Cuyama River watershed (i.e. Twitchell Reservoir).

WPA 8 – California Valley. Water Planning Area 8 (WPA 8) consists of the Carrizo Plain area of the County. Purveyors include the California Valley CSD, the CDF-Simmler Fire Station, California Valley Water, and the Carrisa Plains Elementary School.

WPA 9A – Salinas. Water Planning Area 9A (WPA 9A) generally consists of the Salinas River watershed along the U.S. Highway 101 corridor from Santa Margarita Lake north to San Miguel. Purveyors include the City of Paso Robles, Templeton CSD, San Miguel CSD, Garden Farms County Water District, CSA 23 (Santa Margarita), and the following private purveyors:

- *Atascadero Mutual Water Company*
- *McNamara Water Supply*
- *Durand Water Co*
- *Adelaide Estates MWC*
- *Almira Water Assn*
- *Town Creek Water Supply*
- *McNamara Water Supply*
- *Via Condiás Water Supply*
- *Atascadero Lake*
- *Los Robles M.H. Estates*
- *Mustang Mobile Village*
- *Rancho Colina M.H. Park*
- *Resthaven M.H. Park*
- *Rinconada Trailer Park*
- *Santa Margarita Lake Campground*
- *Hazard Water Supply*
- *Atascadero State Hosp. Water*
- *Bow Valley Aquiland Wtr. Supply*
- *Camp Wantala Water Supply*
- *El Paso de Robles School*
- *Ritchie's Water Supply*
- *Moe Water Supply*
- *The Hillhouse Water Supply*
- *Pete Johnston Chevrolet*
- *Pleasant Valley Elementary School*
- *Port-a-Port West*
- *Pozo Saloon*
- *San Paso Truck Stop*
- *Santa Lucia School*
- *Shan-Val Hills Vineyard*
- *Wine World Estates*
- *Mustang Springs MWC*

WPA 9B – Creston. Water Planning Area 9B (WPA 9B) encompasses the portion of the Paso Robles groundwater basin that also coincides with the Huerhuero Creek watershed. The northwestern boundary is generally the boundary between urban land uses of Paso Robles and the agricultural uses surrounding Creston. The southern boundary follows the watershed boundary of the Huerhuero Creek. Purveyors include the Black Mountain RV Resort.

WPA 9C – Shandon. Water Planning Area 9C (WPA 9C) encompasses the watershed bounded by the La Panza Range to the southwest and includes the Estrella Creek watershed to the north. Purveyors include County Service Area No. 16 and the following purveyors:

- *Green River MWC*
- *Phillips Elementary School*
- *Shandon Rest Stop*
- *Hearst Corp-Cholame Store*

WPA 10 – Nacimiento. Water Planning Area 10 (WPA 10) consists of the portion of the County that drains into Lake Nacimiento. Purveyors include Heritage Ranch CSD and the following private purveyors:



- *Bee Rock Store Water Supply*
- *Cal-Shasta Club, Inc.*
- *Christmas Cove Co.*
- *Laguna Vista Boat Club*
- *Nacimiento Water Company (Oak Shores)*
- *North Shore Club*
- *South Shore Village Club*

Table 4.11-1 summarizes the existing water resource supply and projected demands for a 20-year planning horizon for each water planning area in the region. The information in the table was taken from the County's Water Master Plan (1998), slocountywater.org (2009), and *Water Supply in the Nipomo Mesa Area* (November 2004).

b. Water Supply. The following discussion of County water supply has been adapted from the San Luis Obispo County Water Master Plan, as augmented by additional information on www.slocountywater.org (2009), and *Water Supply in the Nipomo Mesa Area* (SLO County, November 2004). County water supply is divided among three main sectors: groundwater, surface impoundments, and allotments of State water provided through the State Water Project.

WPA 1 – North Coast (North Coast Planning Area). Groundwater basins in WPA 1 include the San Carpoforo, Arroyo de la Cruz, Pico, San Simeon, Santa Rosa, and Villa basins. Estimates of groundwater availability indicate an annual yield of approximately 5,664 acre-feet (AFY). In addition to groundwater supplies from several coastal basins, WPA 1 benefits from stream flows with an estimated 4,737 AFY in appropriated stream flows. Approximately one-third of the appropriated flows are along the San Carpoforo Creek, half from San Simeon Creek, and the remainder from Santa Rosa Creek. Cambria CSD and the Hearst Corporation hold significant water rights in WPA 1.

WPA 2 – Cayucos (Portions of Estero and Adelaina Planning Areas). Three separate purveyors supply domestic water to the community of Cayucos: Morro Rock Mutual Water Company, Paso Robles Beach Water Company, and County Service Area #10. These purveyors share a common source of supply (Whale Rock Reservoir) and operate a common water treatment plant. In addition, WPA 2 includes the San Geronimo, Cayucos, Old, and Toro Basins. These basins are used principally for local domestic and agricultural purposes. Old Basin is the small alluvial deposit downstream of Whale Rock Dam which is also used by Cayucos water purveyors. Estimates of groundwater availability indicate a yield of approximately 1,191 acre-feet with a surface water supply of 2,224 acre-feet (Water Master Plan; slocountywater.org, 2009). It should be noted that this estimate comes from data published in 1958.

WPA 3 – Los Osos/Morro Bay (Portions of Estero Planning Area). Three groundwater basins (Morro, Chorro, and Los Osos) provide water to municipal, agricultural, recreational, institutional and local domestic users within WPA 3. While these three basins have been grouped together within this planning area, the three basins are very different in terms of their



Table 4.11-1 Existing Water Supply and Projected Demand

Water Planning Areas	County Planning Areas	Quantity of Water Resources (af-yr) ¹				Demand ²	Balance [Deficiency]	Level of Severity (LOS) ³
		Surface	Groundwater	Reclaimed	Imported			
WPA #1: North Coast	North Coast Planning Area	4,737	5,664	0	0	U = 2,770 A = 540 R = 790	6,300	SPL = III SYS = III
WPA #2: Cayucos	Estero Area Plan	2,224	1,191	0	0	U = 750 A = 850 R = 680	1,170	SPL = III SYS = II
WPA #3: Los Osos/ Morro Bay	Estero Area Plan	5,262	3,700	275	1,313	U = 6,930 A = 7,490 R = 780	[6,240]	SPL = II SYS = II
WPA #4: SLO/Avila	San Luis Bay – Coastal Area Plan, San Luis Obispo Inland Area Plan,	8,073	5,900	0	100	U = 14,490 A = 6,060 R = 1,100	[7,680]	San Luis Obispo Creek Basin: SPL = I
WPA #5: Five Cities	San Luis Bay – Coastal Area Plan, San Luis Obispo Bay Inland Area Plan, Huasna – Lopez Inland Area plan	10,657	9,320	0	1990	U = 11,990 A = 16,230 R = 3,940	[12,160]	none
WPA #6: Nipomo Mesa	South County Coastal/Inland Area Plans	0	19,900	0	0	U = 3,900 A = 22,540 R = 3,080	[9,620]	Nipomo Mesa Conservation Area: SPL = III
WPA #7: Cuyama	Los Padres Inland Area Plan	0	8,000	0	0	U = 0 A = 20,520 R = 490	[13,010]	none
WPA #8: California Valley	Shandon-Carrizo Area Plan	0	600	0	0	U = 0 A = 210 R = 1,090	[700]	none
WPA #9a: Salinas	Salinas River Area Plan Las Pilitas Area Plan,	3,693	48,000	0	0	U = 41,120 A = 31,820 R = 7,440	[28,690]	Garden farms SPL = II, Templeton SYS = III, Santa Margarita SYS = II
WPA #9b: Creston	El-Pomar/Estrella Planning Area	263		0	0	U = 0 A = 5,750 R = 6,230	36,280	None
WPA #9c: Shandon	Shandon/Carrizo Inland Planning Areas	138		0	0	U = 0 A = 27,190 R = 1,070	19,880	None
WPA #10: Nacimiento	Nacimiento, Adelaida Inland Planning Area	1,200	0	0	0	U = 0 A = 0 R = 3,020	[1,820]	Heritage Ranch SYS = II

¹ Estimated urban water demands are based on General Plan buildout projections, which is beyond the 20 year time frame required by Integrated Regional Water Management guidelines.

² Estimate rounded to nearest 10 ac-ft

³ San Luis Obispo 2008 Annual Resources Summary Report LOS Recommendation for water supply (SPL) and water system (SYS). Ratings are applies to County Planning Areas. LOS I = projected water demand over the next nine years equals or exceeds the estimated dependable supply, LOS II = projected water demand over the next seven years equals or exceeds the estimated dependable supply, LOS III = the existing water demand equals or exceeds the dependable supply

Sources: Water Master Plan (1998); Water Supply in the Nipomo Mesa Area, SLO County, November 2004.



management issues, including seawater intrusion, high nitrate concentrations, and imported water recharge (Water Master Plan, 1998). Estimates of groundwater availability indicate an annual yield of approximately 3,700 AFY (Water Master Plan, 1998). Surface supplies to WPA 3 include water from Whale Rock Reservoir, seawater desalination, State Water supplies, and stream flow. Non-groundwater supply is estimated at approximately 5,262 AFY (Water Master Plan, 1998).

WPA 4 - San Luis Obispo/Avila (San Luis Obispo, San Luis Bay Coastal, and San Luis Bay Inland Planning Areas). The primary groundwater basin that provides water to WPA 4 is the San Luis Obispo Creek groundwater basin. Estimates of groundwater availability indicate an annual sustained yield of approximately 5,900 acre-feet (Water Master Plan, 1998). Surface supplies to WPA 4 include water from Salinas and Whale Rock Reservoirs (principally supplying the City of San Luis Obispo), Lopez Reservoir (to Avila Beach) plus State Water supplies (to Avila CSD, Avila Valley MWC, and others). A seawater desalination plant is operated at the Diablo Canyon Nuclear Power Plant to satisfy high quantity process water needs at the plant. Non-groundwater supply is estimated at approximately 8,073 AFY (Water Master Plan, 1998).

WPA 5 - Five Cities (Portions of San Luis Bay Inland, Huasna/Lopez, and South County Inland Planning Areas). The municipal providers in the Five Cities area (Arroyo Grande, Pismo Beach, Oceano CSD, and Grover Beach) are all on groundwater wells and the Lopez system. The systems share common service area boundaries that do facilitate emergency interconnections; several system interties are in place today. Additionally, Oceano CSD and Pismo Beach both have a State Water allocation.

WPA 5 includes the Pismo Creek-Edna Valley Basin and the Arroyo Grande Plain and Tri-Cities Mesa portion of the Santa Maria Valley Basin. Management issues in these areas include the impact of Lopez Dam modifications, increasing demands on water resources, wastewater reuse, and localized high levels of nitrate concentrations. Sea water intrusion is a potential impact which could result from excessive pumping and inadequate recharge. Combined, these basins provide an estimated 9,320 to 10,320 AFY to the water planning area (Water Master Plan, 1998). Surface supplies to WPA 5 include water from Lopez Reservoir, State Water supplies, and stream flow. Non-groundwater supply is estimated at approximately 10,657 AFY (Water Master Plan, 1998).

WPA 6 - Nipomo Mesa (Portions of South County Coastal and South County Inland Planning Areas). WPA 6 includes the Nipomo Mesa and Oso Flaco portions of the Santa Maria Basin, which are within San Luis Obispo County. The water management issues in these areas include increasing overdraft conditions in the Nipomo Mesa area, well interference from groundwater pumping, water quality issues related to agricultural return flow and domestic wastewater return flow and saltwater intrusion. The portions of the Santa Maria Groundwater Basin within SLO County provide an estimated 19,900 AFY under worst case conditions, which includes areas underlying the Nipomo Mesa, Tri-Cities Mesa, and Santa Maria Valley (*Water Supply in the Nipomo Mesa Area*, SLO County, November 2004). Non-groundwater supplies consist of some reclaimed water being used for irrigation purposes. However, surface water yield for domestic purposes is assumed to be 0 AFY (Water Master Plan, 1998).



WPA 7 – Cuyama (Portions of Shandon-Carrizo, Los Padres, and Huasna/Lopez Area Plans). Water service to the Cuyama area is provided by small isolated water systems that lack interties. Within WPA 7, the Cuyama groundwater basin is in an overdraft condition. The basin provides an estimated safe yield of approximately 8,000 AFY to the water planning area. Surface water yield is assumed to be 0 AFY (Water Master Plan, 1998).

WPA 8 – California Valley (Portions of Shandon-Carrizo Planning Area). Water service to the California Valley area is provided by small isolated water systems that lack interties. Water is supplied to the California Valley through groundwater extraction from the Carrizo Plain basin. Estimates of groundwater availability indicate a safe seasonal yield of approximately 600 acre-feet. However, this estimate comes from data published in 1958. In addition, it should be noted that much of the Carrizo Plain basin has not been studied in detail, and true perennial yield values are not known. Surface water yield is assumed to be 0 AFY (Water Master Plan, 1998).

WPA 9A – Salinas (Portions of Salinas River, Los Padres, Las Pilitas, El Pomar-Estrella, Adelaida and Nacimiento Area Plans). The three largest communities in WPA 9A (Paso Robles, Atascadero, and Templeton) operate separate water distribution systems. Templeton CSD and Paso Robles have a system intertie at Highway 46 and Theater Drive. The distance between Templeton and Atascadero's systems is approximately 1.5 miles. Similarly, Santa Margarita's water system does not adjoin any other community systems, though the Salinas Pipeline (which delivers water to City of San Luis Obispo and Cal Poly) traverses the Santa Margarita service area. San Miguel does not adjoin any other community water system.

Water is supplied to WPA 9A through groundwater extraction from the Paso Robles, Pozo and Cholame basins. Estimates of groundwater availability indicate a yield of approximately 48,000 AFY (Water Master Plan, 2005). Groundwater supplies are augmented by an estimated 3,693 AFY of appropriated stream flows. Releases from Salinas Reservoir benefit groundwater basin recharge and help maintain a "live stream" flow in the Salinas River. While the most recent information (Paso Robles Groundwater Basin Study; Fugro, 2005), indicates that Paso Robles Basin is not in overdraft, there is evidence that localized "pumping depressions" have or could occur within sub areas of the Basin. Most notable is the area roughly along the Hwy. 46 East corridor from the City of Paso Robles boundary to Whitley Gardens. If this condition persists, additional withdrawals in this area could exacerbate this condition.

WPA 9B – Creston (Portions of El-Pomar/Estrealla, Los Padres, Las Pilitas, and Shandon-Carrizo Area Plans). Water service to the Creston area is provided by small, isolated water systems that lack interties. Similar to WPA 9A, water is supplied to WPA 9A through groundwater extraction from the Paso Robles, Pozo and Cholame basins. Agricultural water uses are predominant. Estimates of groundwater availability indicate a yield of approximately 48,000 AFY (Water Master Plan, 1998). Groundwater supplies are augmented by an estimated 263 AFY of appropriated flows along Huerhuero Creek.

WPA 9C – Shandon (Portions of Shandon/Carrizo, El Pomar-Estrella, and Los Padres Area Plans). Water service to the Shandon area is provided by small, isolated water systems that lack interties. Similar to WPA 9A and 9B, water is supplied to WPA 9C through groundwater extraction from the Paso Robles, Pozo and Cholame basins. Agricultural water



uses are predominant. Estimates of groundwater availability indicate a yield of approximately 48,000 AFY (Water Master Plan, 1998). Groundwater supplies are augmented by a 100 AFY entitlement in the State Water Project and 38 AFY of appropriated flows along the San Juan Creek and Estrella River systems.

WPA 10 – Nacimiento (Portions of Nacimiento and Adelaida Area Plans). No source of groundwater supply in WPA 10 has been identified (Water Master Plan, 2005). However, approximately 1,200 AFY of San Luis Obispo County Flood Control and Water Conservation District’s entitlement at Lake Nacimiento benefits users in WPA 10 (Water Master Plan, 1998).

c. Water Demand. The following discussion of County water demand has been adapted from the San Luis Obispo County Water Master Plan, as most recently updated, supplemented with data from slocountywater.org (2009), and additional data provided by the Nipomo Community Services District (*Water Supply in the Nipomo Mesa Area*, November 2004). Existing demand can be separated into three main types of demand: urban, agricultural, and rural.

WPA 1 – North Coast (North Coast Planning Area). The total existing and future demands for WPA 1 are listed in Table 4.11-2. As discussed in Section 4.11.1(b) above, existing supplies total 10,401 AFY. Based on the existing demand of approximately 1,570 AFY, there appears to be a water surplus of approximately 8,831 AFY. However, limited supply is available in many small basins, and is often inaccessible to the urban demands (Water Master Plan, 1998). Larger demands are dependent upon single basins (e.g. Hearst Ranch, CCSD, and San Simeon Acres). In addition, seasonal peaking in demand coincides with summer shortages in supply (Water Master Plan, 1998).

Table 4.11-2 WPA 1 Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	700	1,230	2,770
Agricultural	430	360	540
Rural	440	790	790
Total	1,570	2,380	4,100

Source: Water Master Plan, 1998.

WPA 2 – Cayucos (Portions of Estero and Adelaina Planning Areas). The total existing and future demands for WPA 2 are listed in Table 4.11-3. An increase in irrigation efficiency accounts for the reduction in projected agricultural demand. As discussed in Section 4.11.1(b) above, existing supplies total 3,415 AFY, resulting in a water surplus of approximately 1,685 AFY. A surplus of approximately 1,625 AFY is expected in 2020, while a surplus of approximately 1,165 is expected at buildout (Water Master Plan, 1998).



Table 4.11-3 WPA 2 Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	470	580	750
Agricultural	740	530	820
Rural	520	680	680
Total	1,730	1,790	2,250

Source: Water Master Plan, 1998.

WPA 3 – Los Osos/Morro Bay (Portions of Estero Planning Area). The total existing and future demands for WPA 3 are listed in Table 4.11-4. As discussed in Section 4.11.1(b) above, existing supplies total 8,962 AFY, resulting in a water deficit of approximately 2,238 AFY. However, according to the Water Master Plan (1998), the deficit appears to be overstated because the Dairy Creek Reclamation project is not yet included in the supply totals. Nonetheless, a deficit of approximately 2,278 AFY is expected in 2020, while a deficit of approximately 6,238 is expected at buildout (Water Master Plan, 1998). A water fixture retrofit program was recently implemented for the community of Los Osos. This program requires replacement of specified water fixtures prior to transferring real property. Additionally, new development projects in the Los Osos area are also required to offset their water use by retrofitting water fixtures in a specified number of off-site structures. The water savings from implementing the Los Osos water fixture retrofitting programs have not been included in the demand calculations.

Table 4.11-4 WPA 3 Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	3,700	5,170	6,930
Agricultural	6,880	5,290	7,490
Rural	620	780	780
Total	11,200	11,240	15,200

Source: Water Master Plan, 1998.

WPA 4 – San Luis Obispo/Avila (San Luis Obispo, San Luis Bay Coastal, and San Luis Bay Inland Planning Areas). The total existing and future demands for WPA 4 are listed in Table 4.11-5. As discussed in Section 4.11.1(b) above, existing supplies total 13,973 AFY, resulting in a water deficit of approximately 237 AFY. A deficit of approximately 4,407 AFY is expected in 2020, while a deficit of approximately 7,677 AFY is expected at buildout (Water Master Plan, 1998). The City of San Luis Obispo will receive some supply from Lake Nacimiento in the future. In addition, they are considering a water reuse program. In the past, the City has experienced severe shortages during drought.



Table 4.11-5 WPA 4 Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	8,470	13,260	14,490
Agricultural	4,970	4,020	6,060
Rural	770	1,100	1,100
Total	14,210	18,380	21,650

Source: Water Master Plan, 1998.

WPA 5 – Five Cities (Portions of San Luis Bay Inland, Huasna/Lopez, and South County Inland Planning Areas). The total existing and future demands for WPA 5 are listed in Table 4.11-6. Anticipated changes in cropping acreage in the Five Cities WPA include an increase in vegetable, vineyard, and deciduous crops, coupled with declining irrigated pasture. The combined effect of these anticipated changes contributes to a fairly steady agricultural water demand.

As discussed in Section 4.11.1(b) above, existing supplies total 19,997 AFY, resulting in a water deficit of approximately 4,563 AFY. A deficit of approximately 6,373 AFY is expected in 2020, while a deficit of approximately 12,163 AFY is expected at buildout (Water Master Plan, 1998). According to the Water Master Plan, Edna Valley is experiencing rapid development of vineyards with some additional residential activity. As a result, competition for limited ground water resources will intensify. South County cities have relatively large urban demand and some are projecting considerable growth, especially Pismo Beach and Arroyo. Lopez Lake is currently under study for new yield estimates and the dam is slated for seismic improvements.

Table 4.11-6 WPA 5 Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	7,040	10,200	11,990
Agricultural	14,460	12,230	16,230
Rural	3,060	3,940	3,940
Total	24,560	26,370	32,160

Source: Water Master Plan, 1998.

WPA 6 – Nipomo Mesa (Portions of South County Coastal and South County Inland Planning Areas). The total existing and future demands for WPA 6 are listed in Table 4.11-7. Anticipated future changes in cropping acreage in the Nipomo Mesa WPA include an increase in nursery and vegetable crops, coupled with declining citrus crops. The combined effect of these anticipated changes contributes to a fairly steady agricultural water demand (Water Master Plan, 1998). As discussed in Section 4.11.1(b) above, existing supplies total 19,900 AFY, resulting in an existing water deficit of approximately 9,620 AFY (*Water Supply in the Nipomo Mesa Area*, SLO County, November 2004). At projected buildout, the deficit would increase to 16,300 AFY without another source to augment existing supplies. Both the Nipomo Mesa and Oso Flaco portions of the Santa Maria Basin have been found to be in a state of overdraft (Nipomo Mesa Groundwater Resource Capacity Study and 2005 Santa Barbara County Groundwater Report, respectively).



Table 4.11-7 WPA 6 Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	3,900	5,030	7,670
Agricultural	22,540	23,860	24,180
Rural	3,080	5,940	4,350
Total	29,520	34,830	36,200

Source: Water Supply in Nipomo Mesa Area, SLO County, 2004.

WPA 7 – Cuyama (Portions of Shandon-Carrizo, Los Padres, and Huasna/Lopez Area Plans). The total existing and future demands for WPA 7 are listed in Table 4.11-8. Anticipated changes in the future cropping acreage in the Cuyama WPA include an increase in vegetable and deciduous crops. Changing crop patterns combined with changes in irrigation efficiency contributes to a fairly steady agricultural water demand (Water Master Plan, 1998). As discussed in Section 4.11.1(b) above, existing supplies total 8,000 AFY, resulting in a water deficit of approximately 11,310 AFY. A deficit of approximately 9,310 AFY is expected in 2020, while a deficit of approximately 12,980 AFY is expected at buildout (Water Master Plan, 1998).

Table 4.11-8 WPA 7 Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	0	0	0
Agricultural	18,890	16,820	20,490
Rural	420	490	490
Total	19,310	17,310	20,980

Source: Water Master Plan, 1998.

WPA 8 – California Valley (Portions of Shandon-Carrizo Planning Area). The total existing and future demands for WPA 8 are listed in Table 4.11-9. As discussed in Section 4.11.1(b) above, existing supplies total 600 AFY, resulting in a water deficit of approximately 330 AFY. A deficit of approximately 660 AFY is expected in 2020, while a deficit of approximately 700 AFY is expected at buildout (Water Master Plan, 1998).

Table 4.11-9 WPA 8 Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	0	0	0
Agricultural	200	170	210
Rural	730	1,090	1,090
Total	930	1,260	1,300

Source: Water Master Plan, 1998.

WPA 9A – Salinas (Portions of Salinas River, Los Padres, Las Pilitas, El Pomar-Estrella, Adelaida and Nacimiento Area Plans). The total existing and future demands for WPA 9A are listed in Table 4.11-10. As discussed in Section 4.11.1(b) above, existing supplies total 51,693



AFY, resulting in a water surplus of approximately 4,613 AFY. However, a deficit of approximately 4,317 AFY is expected in 2020 and a deficit of approximately 28,897 AFY is expected at buildout (Water Master Plan, 1998).

Table 4.11-10 WPA 9A Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	14,450	25,830	41,120
Agricultural	27,180	22,740	31,820
Rural	5,450	7,440	7,440
Total	47,080	56,010	80,380

Source: Water Master Plan, 1998.

WPA 9B – Creston (Portions of El-Pomar/Estrealla, Los Padres, Las Pilitas, and Shandon-Carrizo Area Plans). The total existing and future demands for WPA 9B are listed in Table 4.11-11. As discussed in Section 4.11.1(b) above, existing supplies total 48,263 AFY, resulting in a water surplus of approximately 40,163 AFY. A surplus of approximately 38,223 AFY is expected in 2020, while a surplus of approximately 36,283 AFY is expected at buildout (Water Master Plan, 1998).

Table 4.11-11 WPA 9B Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	0	0	0
Agricultural	4,120	3,810	5,750
Rural	3,980	6,230	6,230
Total	8,100	10,040	11,980

Source: Water Master Plan, 1998.

WPA 9C – Shandon (Portions of Shandon/Carrizo, El Pomar-Estrella, and Los Padres Area Plans). The total existing and future demands for WPA 9C are listed in Table 4.11-12. As discussed in Section 4.11.1(b) above, existing supplies total 48,138 AFY, resulting in a water surplus of approximately 27,058 AFY. A surplus of approximately 25,178 AFY is expected in 2020, while a surplus of approximately 19,878 is expected at buildout (Water Master Plan, 1998).

Table 4.11-12 WPA 9C Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	0	0	0
Agricultural	20,360	21,890	27,190
Rural	720	1,070	1,070
Total	21,080	22,960	28,260

Source: Water Master Plan, 1998.

WPA 10 – Nacimiento (Portions of Nacimiento and Adelaida Area Plans). The total existing and future demands for WPA 10 are listed in Table 4.11-13. As discussed in Section



4.11.1(b) above, existing supplies total 1,200 AFY, resulting in a water deficit of approximately 370 AFY. A deficit of approximately 1,820 AFY is expected in 2020 and at buildout (Water Master Plan, 1998).

Table 4.11-13 WPA 10 Demand by Category

Category of Demand	Existing Demand (AFY)	2020 Demand (AFY)	Buildout Demand (AFY)
Urban	0	0	0
Agricultural	0	0	0
Rural	1,570	3,020	3,020
Total	1,570	3,020	3,020

Source: Water Master Plan, 1998.

4.11.2 Impact Analysis

a. Methodology and Significant Thresholds. In accordance with Appendix G of the *State CEQA Guidelines*, impacts would be significant if development resulting from the Grading and Stormwater Management Ordinances would result in any of the following:

- *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);*
- *Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or*
- *Fail to have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.*

Additionally, the County of San Luis Obispo has established local thresholds pertaining to water availability. Impacts would be significant if development resulting from the project would result in any of the following:

- *Change the quality of groundwater (e.g. saltwater intrusion, nitrogen loading, etc.);*
- *Change the quantity or movement of available surface or ground water; or*
- *Adversely affect a community water service provider.*

Since the Grading and Stormwater Management Ordinances do not involve any immediate physical changes or projects, the above guidance is useful only in general terms. The County Resource Management System (RMS) tracks water supply and delivery systems throughout the County, and provides a more specific set of criteria in its evaluation process. The RMS defines the two highest levels of severity for water supply as follows:

- *Level of Severity II: When projected water demand over the next seven years equals or exceeds the estimated dependable supply.*
- *Level of Severity III: When the existing water demand equals or exceeds the dependable supply.*



For water delivery systems, the levels of severity are similar:

- *Level of Severity II: When the water delivery system is projected to reach design capacity within the next five years.*
- *Level of Severity III: When the water delivery system reaches its design capacity.*

b. Project Impacts and Mitigation Measures.

Impact WR-1 The proposed Grading and Stormwater Management Ordinances would expand agricultural exemptions and the alternative review process in the Coastal Zone. This could facilitate potential expansion of agricultural facilities, such as roads and stock ponds. Reducing impediments to creation/expansion of support facilities could result in further expansion of water-intensive agricultural uses. Such uses could increase water demand in areas where water resources are limited. Since project-level information is unavailable, the magnitude of the impact is unknown. Hence, this is considered a *Class I, significant and unavoidable, impact.*

The current Coastal Zone grading ordinance provides an exemption from grading permits specifically for cultivation of agricultural land. The exemption does not extend to appurtenant facilities, such as roads and ponds. The proposed project would expand agricultural exemptions and introduce an alternative review process into the Coastal Zone. This will allow certain agricultural facilities to avoid the grading permit process. This will not, however, affect land use permitting requirements.

The Coastal Zone in San Luis Obispo County is represented in Water Planning Areas (WPAs) 1 through 6. As identified in Table 4.11-1, three of these WPAs (1–North Coast; 2–Cayucos; and 6–Nipomo Mesa) have been classified with a Level of Severity III for water supply. Additionally, WPA 3 (Los Osos and Morro Bay) has been identified with a Level of Severity II for water supply and WPA 4 (SLO/Avila) has been identified with a Level of Severity I for water supply.

By removing impediments to expansion of agricultural uses, it is reasonable to conclude that agricultural uses may expand. In most cases, this will increase the demand for water. This is particularly true when such expansion would be to accommodate types of crops which require a comparatively large amount of water per acre. Increasing the demand where water availability is identified as an issue would constitute a significant impact.

Of the five identified WPAs where water supply was classified under a Level of Severity I through III, two actually have a surplus balance. As identified in Table 4.11-1, WPA 1 North Coast) and WPA 2 (Cayucos), have a surplus of 6,300 afy (acre-feet per year) and 1,170 afy, respectively. The Levels of Severity assigned to these WPAs was largely due to the urban water supply issues in the communities of Cambria and Cayucos. Outside of these communities, groundwater is still available to serve agricultural uses.



The Coastal Zone portion of WPA 3 (Morro Bay / Los Osos) includes portions of the Chorro Valley and Los Osos Valley, both of which are productive agricultural areas. Expansion of agricultural uses in these areas could potentially affect water supply.

Within the Coastal Zone portions of WPAs 4 (SLO/Avila) and 5 (Five Cities) there is very little unincorporated agricultural land that could be affected by the proposed Grading and Stormwater Management Ordinances. Most land in the Coastal Zone portion of these WPAs has either been urbanized, developed for non-agricultural uses, or is otherwise unsuitable for commercial agricultural production. Land in this area which is currently under agricultural production is largely limited to the Cienega Valley. In this area, agricultural production already occurs on the majority of suitable farmland. Any site work to continue ongoing agricultural production is already exempted from grading permits under the Coastal Zone Land Use Ordinance.

The Level of Severity III identified in WPA 6 (Nipomo Mesa) applies only to land in the Nipomo Mesa Water Conservation Area. The conservation area is largely coterminous with the mesa itself. The Coastal Zone portion of the Nipomo Mesa is relatively small and includes only those lands south of Highway 1 / Willow Road and west of Highway 1 / Guadalupe Road. Zoning in this area consists of Residential Suburban and Industrial and is part of the Callender-Garrett village. Despite the zoning, a portion of this area is used for crop production – predominately strawberries and avocados.

Agriculture Element Policy 11 (AGP11) establishes the County's policy regarding agricultural water use:

Maintain water resources for production agriculture, both in quality and quantity, so as to prevent loss of agriculture due to competition for water with urban and suburban development.

This policy emphasizes a priority in water use towards production agriculture. As a result, it is possible that increased water demand from agricultural uses could negatively affect urban and suburban uses.

As specific information on the expansion of agricultural uses in the Coastal Zone is not known, gauging the significance of its impact on water resources is somewhat speculative. Nonetheless, as some of the areas where increase agricultural use could take place are already in a potentially severe state relative to water supply, one could reasonably conclude that removing barriers to agricultural expansion could potentially result in a significant impact to water resources. Therefore, this impact is considered Class I, *significant and unavoidable*.

Mitigation Measures. The proposed project would involve expanding the agricultural exemption program and introducing the alternative review processes to the Coastal Zone. As no County permit would be required for some of these agricultural uses, application of mitigation to these projects would be infeasible.

Significance after Mitigation. No mitigation measures can feasibly be applied to this project in order to reduce the impact to a less-than-significant level. As such, the potential for a significant impact to water resources to occur as a result of agricultural expansion remains.



Impact WR-2 The proposed Grading and Stormwater Management Ordinances would modify the current development standards relating to erosion and sedimentation control and stormwater management. While the project may result in minor short-term construction phase impacts to water availability in order to design a project consistent with new standards, the project would not result in long-term impacts to water resources or infrastructure. This is because the project would not affect density and intensity limitations already established by the County and would not hasten non-agricultural growth by removing regulatory restrictions. As such, this would be a Class III, *less than significant, impact*.

The proposed Grading and Stormwater Management Ordinances would modify development standards. These modified standards will require that projects incorporate additional erosion and sedimentation control measures and stormwater management devices into their design. During the construction phase, work to accommodate these additional features may necessitate short-term water use.

In addition to the changes to design standards, certain dust control measures are to be required, in compliance with Mitigation Measures AQ-1(a) and AQ-1(b). These measures would require the use of water trucks or sprinklers to control dust. Additionally, projects subject to Measure AQ-1(b) would be required to install wheel washers.

While the amount of water use occurring during the construction phase could reasonably be anticipated to increase as a result of this ordinance, the actual affect on water demand would not be significant. This is the case, because water use associated with grading and construction is short-term and is not ongoing.

Regarding long-term impacts, the project will not modify any existing General Plan, Land Use Ordinance, or Coastal Zone Land Use Ordinance policies or regulations regarding density or intensity of development. Buildout will occur as prescribed by the General Plan and County Code. Furthermore, the proposed Grading and Stormwater Management Ordinances will not remove any impediments to non-agricultural development that might hasten development in areas with water resource constraints. Based on these facts, impacts to water resources from short-term and long-term non-agricultural development are not anticipated to be significant.

Mitigation Measures. No mitigation measures are necessary.

Significance after Mitigation. The impact will be less than significant.

d. Cumulative Impacts. Cumulative water resource impacts associated with expansion of agricultural uses in the Coastal Zone would incrementally increase water supply demand. In some cases, this additional demand could be added to areas of the County where existing water demand equals or exceeds the dependable supply. Therefore, the Grading and Stormwater Management Ordinances could have a cumulatively considerable impact on County water resources. Cumulative impacts are not anticipated from short-term construction phase water use. Additionally, as the project will not result in a change to



density or intensity requirements and will not result in growth inducement, cumulative long-term impacts associated with non-agricultural growth are not anticipated.

